

Policy, Planning, and Research

WORKING PAPERS

Education and Employment

Population and Human Resources
Department
The World Bank
June 1989
WPS 237

The Curricular Content of Primary Education in Developing Countries

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There is no evidence to support the claim that developing countries teach more subjects or emphasize different subject matter in primary schools than developed countries do—so efforts to change or simplify their primary curricula may be strongly resisted.

Benavot and Kamens examined the curriculum policies for primary schools in a wide range of developing countries in the 1980s and, to a lesser extent, the 1960s. They researched what subjects are taught, what percentage of instructional time is allocated to each subject, and how much instructional time is available overall in primary education. They learned the following:

There is little debate about school curricula in national and international reports, apparently because there is so much consensus around the world about what subjects to offer and emphasize in primary school and how much time to devote to them. In terms of official curriculum policies, anyway, today's primary school curriculum is increasingly taken for granted.

Moreover, the curricula of mass educational systems are increasingly alike all over the world, with surprisingly little regional and national variation. Almost all national educational systems equally emphasize certain core subjects: language (35%), math (18%), science (8%), and social science (9%).

Within core subject categories, interesting variations exist. For example, countries in sub-Saharan Africa (SSA) are more likely than countries elsewhere to teach an official language that is not a mother tongue for most of the

population. They also offer more instruction in local languages than countries elsewhere. All countries in the EMENA region (southern Europe, the Middle East, and North Africa) offer instruction in an official language and are also more likely to offer instruction in foreign languages than other regions.

As for social sciences, countries in Latin America and the Caribbean (LAC) offer more instruction in social studies and less in history and geography than other regions, except that Asian countries offer the least instruction in history and geography. Countries in the SSA and EMENA offer more instruction in history and geography than other countries. Countries in the SSA offer the most civics courses.

Variety is greater for peripheral subjects. Countries in Asia offer more courses in moral education; countries in the SSA and EMENA more courses in religion; LAC countries more courses in manual training than other regions do. Few developing countries offer a course in "business" or "vocational" education at the primary level. Countries in the SSA include at least one course in prevocational education (usually agriculture or domestic science). No Asian countries offer a course in domestic science.

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I. Introduction

Formal education is now a worldwide institution touching the lives of hundreds of millions of young children around the globe. Enrollments at all levels of education have increased rapidly over the past several decades. Developed countries have generally had universal primary education since the turn of the twentieth century (Benavot and Riddle, 1988); much of the recent expansion at the primary level has occurred in developing countries. By 1985 the gross primary enrollment ratio among developing countries was estimated to be over 90 percent (UNESCO, 1987). With so much of childhood now officially schooled, researchers and policy makers have turned their attention to issues concerning the quality and internal efficiency of primary education (Psacharopoulos and Woodhall, 1985; Heyneman and White, 1986). The lowering of dropout and repetition rates and the production and distribution of badly needed instructional materials are among their highest policy priorities.

Yet with all the interest in providing an instructionally effective and financially efficient educational environment, it is surprising how little is said (or known) about one of the most important components of schooling in the modern world: the curriculum. Whether viewed as a corpus of fixed cultural knowledge transmitted from generation to generation or as a changing collection of socially constructed and politically fashioned official subject matter, the curriculum serves critical educational functions (see discussion in Schubert, 1986). One of the main functions of the curriculum is to distribute the content of instruction throughout the days and years of schooling according to explicit and reasoned goals. In this sense, the curriculum -- especially the official intended curriculum -- embodies a series of policies determining what types of classes will be offered to students and what material will be taught in each type of class. This is not an insignificant matter. As a recent international assessment of math achievement illustrated (McKnight et al., 1987), the official curriculum sets boundaries on the learning opportunities and attainments of individual students by specifying the content to which they will be exposed.

Given the prevalence of schooling to childhood and the centrality of the curriculum to schooling, comparative research about the composition of school curricula is long overdue. In this paper, we report data on official curricular policies regarding elementary schooling for a wide range of less-developed countries in the mid-1980s and, to a lesser extent, in the 1960s. Our basic aim is to describe and compare cross-nationally three aspects of primary school curricula: 1) what subjects are taught during the primary school cycle; 2) what percentage of instructional time is allocated to different subjects; and 3) and how much instructional time is available overall in primary education. We also explore the issue of whether national variations in curricular offerings and emphases are related to general world trends, global regional cultures and such national characteristics as economic development and educational expansion.

It is easy to imagine many properties of societies or time periods that might affect official curricular policies. It is important to keep in mind, however, that the rapid expansion of the institution of mass education itself has a worldwide character, and often is not predicted by immediate factors of time and place. World educational expansion has clearly outpaced most national-level indicators of political development and practically all national-level measures of economic modernization and growth. The very processes that have been involved in the spread of mass education may also generate a good deal of homogeneity in content. The taken-for-granted cultural value of mass education, thus, may carry with it taken-for-granted content too. This theme, as we discuss below, is useful for understanding both the character and stability of curricular policies on primary education in the contemporary period. Some of the most important observations we report concern, not the variation among the world's elementary school curricula, but its absence.

II. Background and Issues

In earlier periods, the substantive content of the school curriculum seems to have been a central cultural issue. Classic social theorists such as Durkheim discussed the curriculum

in very vivid terms (Durkheim, 1977 [1938]). Reports of educational leaders were filled with descriptions of school content -- of the books used, of the questions asked on tests, and of the classroom pedagogies employed (e.g., Barnard, 1859; Klemm, 1889; Prince, 1897). Intellectuals engaged in elaborate debates over which languages to teach, whether and at what age to introduce such new subjects as science, and whether to allocate instructional time for physical training or aesthetic education. In international conferences and compendia, descriptions of school curricula were a central and important item of discussion -- in fact, these reports have been a rich source of data in our own study.

In recent years, however, the curriculum seems to have become a matter of routine discussion -- a kind of taken-for-granted matter, or a silence. Intellectual discourse rarely addresses curricular issues. Conflicts over the curriculum, which occasionally arise, center on marginal matters (a specific issue about evolution, sex biases in textbook illustrations or whether to offer bilingual instruction). The taken-for-granted character of the curriculum is revealed by the controversies.

Consider the recent flurry of reports that lament the state of student knowledge in various subjects. Few of these reports go into great detail about the actual content of the curriculum; most raise questions about what knowledge or values students ought to possess. American educators are concerned that their students know too little geography and history (Ravitch and Finn, 1987; Hirsch, 1987; Kirst 1984) and that they score below average on international achievement tests in math and science (McKnight et al., 1987; IEA, 1988). Asian educators are concerned about students' civic attitudes and civic morality (Cummings, Gopinathan and Tomoda, 1988); Arab countries are worried about the secularization of society and place of religious studies in the primary curriculum (Massialas and Jarrar, 1985). The disturbance created by public announcements that pupils cannot find Mexico City, London, or Moscow on a map suggests the tacit agreement that they ought to be able to do so. What is surprising about these reports is not the controversies they touch upon, but the implicit and strong consensus they reveal over the

proper fields of study in schools and the meaning of what seem to be very abstract fields.

The content of the curriculum has almost disappeared from social theory too. Durkheim's vividness in the matter is replaced by Mannheim's more abstract assumptions and Parsons' completely abstract discussion of the presumed functions of the content of the school (Mannheim, 1952; Parsons, 1959). Indeed, the content of the curriculum has become so routinized that in the academic field of the sociology of education, the term "curriculum" now seems to be used to mainly mean two things little related to the substantive content of instruction. First, in current usage, it means "track," or academic program -- that is, a structural feature of school systems presumably linked to past, present, or future inequalities. The focus here is on the allocational status, not the substantive content, of instruction: how the "curriculum" alters the educational and occupational life chances of different groups of students. This emphasis derives from the special interest of sociologists of education in the effects of education on social mobility and inequality.

Second, the term often refers to the "hidden curriculum" -- the unintended or unanticipated learnings and values that are conveyed to students by the school experience itself. It is argued that certain cultural assumptions (e.g., an orientation towards individual achievement, the importance of competition, the meritocratic character of social inequalities) are built into the culture and social relations of the school and thus play a major role in sustaining the existing social order (Parsons, 1959; Dreeben, 1968; Bourdieu and Passeron, 1977; Apple, 1979; Giroux and Purpel, 1982). While these scholars differ on whether these cultural assumptions are functional for society or for the continued dominance (or reproduction) of particular elites, they agree on the centrality of the grammar of the "hidden curriculum." Once again, the focus is on the implications of the school setting for social equality and inequality, not the substantive content of instruction.

The cultural silence about the content of mass education shows up in specialized research. More than a decade ago, Springer (1977) noted the paucity of comparative

educational research in the area of pedagogy and the curriculum. Her observation is still valid today. We surveyed over 1000 articles published in six major journals devoted to curriculum research and comparative education over the past decade, looking for descriptions or analyses of primary or secondary school curricula, and found just 41 articles that fit these criteria (see Appendix 1). Most of these articles discuss the curriculum of a single country; only 14 articles compare the status of the curriculum in two or more countries. A review of dissertation abstracts cited in the Journal of Curriculum and Supervision (1985-6) uncovered three dissertations on the subject matter of the curriculum, all in a single country, but over fifty dissertations dealing with the "hidden curriculum" of the school.

The extraordinary prevalence of mass education, combined with the relative silence, or lack of contest, about its content in comparative research suggests a very high level of institutionalization. The content of at least the core of mass education seems to be taken-for-granted. One can imagine two likely structural levels at which this institutionalization may be found. A first and most obvious level is that of the national state: nation-states generally have sovereignty over mass education, and commonly plan, fund, and control it. National ministries of education, in fact, specify the official (or intended) curriculum -- a circumstance that lends face validity to the idea that the institutionalization of the curriculum goes on at the nation-state level. Thus, one of the guiding ideas of the present study is:

Mass educational curricula arise and become institutionalized in the nation-state.

This idea, however, does not capture the fact that most nation-states have a history of de jure and de facto dependence, and have educational systems whose origins reflect earlier dependent relations. So the guiding idea above should be elaborated somewhat: we expect that the content of educational institutions in ex-colonies to have a significant degree of stability as they likely reflect the curriculum of their former metropolitan powers.

On the other hand, while mass education is a nationally-controlled institution, it clearly has a worldwide and universal character. Everywhere, it is put forward as a modern and scientifically legitimated instrument of progress and justice, in highly standardized forms (Fiala and Lanford, 1987). As a scientifically supported component of the modern ideology of progress, mass education tends to be placed in the hands of specialized professionals, who themselves are involved in various transnational professional associations and organizations. Thus, mass education tends to be defined, conceived and reported by these professionals in terms of worldwide standards. Indeed, the present research would not have been possible if most of these professionals had not been involved in communicating and reporting their work to each other in rather standardized terms for much of this century. For these reasons, the institutionalization involved may be more at the world level than at the level of the nominally sovereign states. Such reflections lead to a second guiding idea of this study:

The curricula of mass educational systems show (increasingly) worldwide homogeneity and stability.

In contrast to these ideas, most discussions in the field assume that the curricula of mass education reflect societal circumstances, rather than the autonomous history of the nation-state or the educational culture of the global system. A weakly explicated functionalism, in fact, pervades the field: the expectation is that the educational content of different countries will vary according to some sort of societal features or demands. Arguments that more-developed countries will give more emphasis to science and mathematics in their school curricula are indicative of this line of thought. Consider another example: the spread of mass education is important for cultural and social integration, therefore primary school curricula will tend to emphasize national or world realities (e.g., national language, world history, social science) and deemphasize local or particularistic

ones (e.g., local language, local culture and regional history). And in more ethnically diverse countries, where the need for national integration is stronger, the former curricular emphases will be more prominent.

There are also political lines of argumentation, both on the right and the left of the ideological spectrum, that see the curriculum as functioning to maintain social solidarity or the legitimacy of the existing political order. Here the content of schooling is thought to enhance the functioning of society in general or the interests of specific elite or dominant groups in society. There are differences in language and style: the left is more likely to use the term hegemony where the right stresses cultural transmission. The left is more likely to emphasize the difficulty of legitimating vertical differentiation (called hierarchy), where the right sees education as helping to transcend horizontal differentiation (called social solidarity). But it is difficult to see any points where the two lines of thought suggest significantly different propositions about the content of the curriculum. Either line of thought can explain almost anything, and in much the same functionalist way as the other. Specific propositions concerning relative emphases in the curriculum are not easily derived from either literature.

Perhaps in reaction to the vagueness and abstractness of earlier theoretical formulations, current literature on the content of the curriculum has moved toward descriptive empirical work, often of a historical character (e.g., Young, 1971; Goodson, 1987; Goodson and Ball, 1984; Popkewitz, 1987). These new approaches tend to assume that national curricula are not constrained by functional or modern cultural rules, but are socially constructed through the local actions and perceptions of particular individuals and institutions. They have taken up Bernstein's (1974: 156) often quoted challenge: "If we are to take shifts in the content of education seriously, then we require histories of these contents and their relationships to institutions and symbolic arrangements external to the school." This small, but growing body of historical work examines the changing content of curricula, the history of incorporation of specific subjects, and the ways dominant

groups define what is and is not legitimate knowledge for the schools (e.g., Whitty and Young, 1976; Goodson, 1983; Kleibard, 1986; Labaree, 1986).

The guiding idea of this new work is that the curriculum is produced in particular settings by the interaction of multiple and conflicting forces, rather than arising from or being constrained by functional imperatives or modern cultural rules. This view stresses the diversity of school curricula and the deficiency of general explanations in contrast to local historical ones. It calls attention to the impact of particular interest groups, professional societies and social institutions in the struggle to establish a school curriculum. Such lines of thought are at odds with the arguments of the functionalists, but are also inconsistent with the "world culture" institutionalists. Where the latter vision predicts sweeping world-wide consistencies over time and place, the new conjuncturalist arguments predict great diversity between places, though consistency over time within places. Each nation-state (or family of nation-states descending from a common metropole) is seen as having its own curricular trajectory. Thus, the guiding argument is that:

Nation-states tend to have a high degree of consistency in curricular emphases over time, but differ sharply from each other, reflecting unique historical patterns.

With an eye to the general issues outlined above, we turn to the description and analysis of our cross-national study of primary school curricula in less-developed countries.

III. Data: Nature and Limitations

Given the paucity of academic research comparing curricula across countries and over time, we began our search for data with limited aspirations. It quickly became clear, however, that the taken-for-granted character of the curriculum around the world generated much more data than we had expected to find. Indeed, the data collection process itself

exhibits some properties of elementary education in the modern world. Many routinized efforts are made in the current period, mostly by bodies linked to UNESCO, to bring together standard case-by-case descriptions of national school curricula. In earlier periods this business was done with more enthusiasm, in international conferences and compendia. But throughout the modern period, education is seen as a national enterprise, and unlike the situation in the United States, national curricular standards are explicitly formulated, preserved, reported, and eventually collected in comparative reports.

Moreover, the reports are written to be interpreted on a worldwide basis, with less idiosyncrasy in language and style than might be expected. Thus, our main sources are international and comparative media, not national case reports. Exactly as others have found with historical enrollment data on primary education (Benavot and Riddle, 1988), curricular discourse has a universalistic and worldwide character, rather than a local and primordial one. As a consequence, the data we collected are organized in categories that have clear general meaning and comparability -- they are, as it were, written to be coded. This makes our research task easier and tells us a good deal about the nature of national educational systems. Still, questions may be raised about several methodological and substantive points as well as how to interpret our results. We touch upon these issues below.

For the contemporary period (the 1980s) we have data on 92 less-developed countries and 2 colonies (Hong Kong and Namibia -- soon to be independent), although for five of these cases our information indicates only whether a given subject is or is not taught. The data come from UNESCO's International Bureau of Education (microfiche); UNESCO's Regional Office for Education in Asia and the Pacific (1984); Massialas and Jarrar (1983); Fafunwa, Babs and Aisuku (1982); and al-Misnad (1985). In a number of instances we use information gathered directly from inquiries sent to national ministries of education.

For the 1960s period, we have relatively complete data on 53 less-developed countries. Our main sources are The World Survey of Education (UNESCO, 1958) and

The Primary School Curriculum (Dottrens, 1962: prepared under UNESCO auspices using data published by the International Bureau of Education, 1958). Several regional supplementary sources were also used: for Central America (Waggoner and Waggoner, 1971), for Asia (NIER and UNESCO, 1970; Japanese Ministry of Education, 1964) and for Africa (Sasnett and Sepmeyer, 1955; Hawes, 1979).

From the official curricular timetables we located in these sources, we coded two important pieces of information: first, a list of the subjects to be taught during the elementary school cycle (usually, 5-6 years) and second, the number of periods (or hours) to be devoted to each subject during a typical week of primary schooling. We used this information to indicate the presence or absence of topics in the official curriculum and the relative emphasis on each -- these are the two main dependent variables reported in the analyses below.

A number of technical and substantive points may help clarify properties of the data:

(1) Data Frame: First, the data cover national entities -- both sovereign countries and a few dependent colonies -- with distinct national educational systems. In the current period (1970-86), almost all data refer to formally independent nation-states. Second, when we have more than one timetable for a given country during a period, we report results for the data nearest the target years 1960 and 1985. Third, we report data for most of the countries in the world with mass education systems, but we do not have a representative sample. Naturally, the data tend to underrepresent polities and educational systems most weakly linked to the world educational network. Thus our results may overemphasize world conformity and underrepresent local idiosyncrasies or particularly unusual curricular adaptations. In the contemporary period, however, the data appear to be sufficiently extensive to minimize this problem.

(2) Coding Decisions: First, listed topical categories almost always fit into conventional educational categories. When minor variations are found, the topic can ordinarily be classified into such a category. More significant variations are coded as "other." Second,

our measures combine information for the six years most commonly considered elementary education. When the primary cycle is longer than six years, we only consider the curriculum of the first six years; when it is shorter, we include information from the first year or two of the lower secondary cycle. Such decisions produce very little impact on our results. Third, some curricular timetables combine topics we code separately (e.g., mathematics and science). In such cases, we treat both subjects as taught, and treat the allocated periods as split equally between them. Other decisions would alter our results very little.

(3) Nature of the Data: First, our data consist of official declarations of subject matter to be taught in primary schools, generally produced by government education officials in the form of national timetables. We assume that official policies themselves reflect commitments widely understood to carry authoritative intent in a world in which education is predominantly a creature of the nation-state. Thus, official statements of curricular policy are of interest in their own right, but one cannot infer corresponding instructional practices. Curricular policies can be -- and many times are -- poorly related to actual educational practice in local schools. This "slippage" or "loose coupling" between the intended and implemented curriculum occurs, in various degrees, in developed countries (Weick, 1976; Meyer and Rowan, 1983), and implementation is thought to be even weaker in developing ones with newer educational systems. Critics might argue that official policy statements represent more ideology than practice, and that official ideologies of educational content as reported to international agencies reflect worldwide standards much more than classroom reality does. This argument assumes, however, that local teachers and administrators are sampling from different (perhaps, local) content frames than national elites. Given the widespread growth of national networks of teacher training institutes, professional associations and the like, the validity of this assumption is questionable. In any case, it is interesting to see whether national educational leaders reflect world standards of public policy.

Second, the data describe emphasis on general curricular topics (e.g., science or history) and do not describe specific content of these topics. Country differences or temporal changes

in such categories as "history" or "social studies" may or may not represent changes in real curricula as opposed to changes in mere labels. And perhaps homogeneity in general categories masks great variability in intended content. The data we report do not help us here. On the other hand, educational categories like "social studies" carry standard sets of expectations, cumulations of customary materials and topics, and well-defined ideas of imagery and connotation. Changes or variations in them seem likely to signal real variations in policy intent.

IV. The Organization of Analysis

The data analysis sections focus on two basic features of the curriculum: first, which subjects are included in the curriculum; and second, what proportion of curricular time is allocated to each subject. We analyse each feature of the curriculum in two steps. We begin by presenting data on curricular patterns for the most recent period, the 1980s, for all less-developed countries for which we have data (see Sections V and VI). Then, for a select group of countries (those for which we have complete data in the 1960s and the 1980s), we examine changes in national curricula over time (see Sections VII and VIII). In addition, we report preliminary figures on the actual amount of annual instructional time during the primary school years in Section IX below.

The subject matter of primary school curricula is organized into the following general (and specific) categories: Combined Language (national, local, official and foreign language instruction), Math, Science, Combined Social Science (social studies, history, geography, civics), Combined Moral and Religious Education (moral education, religion), Aesthetic Education (music, art), Physical Education, Hygiene, Pre-vocational or Practical Subjects (manual training, agriculture, domestic science, vocational education and business), and Other (which includes recreation, extracurricular activities, recess and elective subjects). A combined category means that classes are offered in any or all of the specific curricular topics listed in that category.

A brief word on the meaning of specific language categories. National language refers to an indigenous language spoken by over fifty percent of the population that is also an official language. Local language refers to a non-official local language spoken by a minority of a country's population. Official language refers to a metropolitan or world language that is an official language but one which is not indigenous in origin. Foreign language refers to a language that is neither official nor indigenous.

We analyse the subject matter of national curricula according to four basic classifications:

(1) By world region. We use the World Bank classification dividing less-developed countries into four geographic areas: Latin American and the Caribbean (LAC); Asia; Sub-Saharan Africa (SSA); and Southern Europe, the Middle East and North Africa, (EMENA).

(2) By per capita income level. Estimates of per capita GNP in 1984 (World Bank, 1986) are used to divide countries into six categories. The first four categories refer to developing countries; the last two categories to developed countries: Low-income (per capita GNP below \$400); Lower middle-income (per capita GNP \$401-\$1700); Upper middle-income (per capita GNP \$1701 - \$7300); High income oil exporters (per capita GNP above \$7300); Market Economy; and Non-Market Economy.

(3) By gross primary enrollment rate. UNESCO (1987) figures on gross primary enrollment ratios (GPER) in 1984 are used to divide less-developed countries into those with a GPER of more or less than 80 percent.

(4) By predicted GNP growth rate and gross primary enrollment rate. This is a two dimensional typology based on economic growth potential (positive or negative) and gross primary enrollment level (high or low).

V. Subjects in the Curricula, 1980s

We begin our survey of the results by examining the propensity of less-developed countries to offer instruction in certain subject areas. The first series of four tables examines the proportion of LDCs that provide instruction in specific subjects of the primary curriculum in the 1980s. Table 1 reports that in the main subject areas of primary education -- language, math, science and social science -- there is relatively little variation among regions. Almost all national educational systems offer classes in these core subjects of the curriculum. These findings -- at least as they relate to math and science -- substantially confirm the conclusions of a recent global study of math and science instruction by UNESCO (1986). There are a few interesting exceptions, however, mainly involving microstates in Oceania: for example, Vanuatu offers no instruction in science; Kiribati and Tonga offer no instruction in the social sciences. Table 1 also reports that almost all countries provide some instruction in aesthetic education and physical education at the primary level. Countries that do not offer instruction in these areas include Cameroon, Ecuador, Thailand, Grenada and Qatar (for aesthetic education) and Tunisia, Trinidad and Tobago, Suriname, Thailand and St. Kitts (for physical education).

Within core subject categories, there are several interesting regional differences as to whether specific subjects are offered. For example, we find that countries in Sub-Saharan Africa (SSA) are more likely (than countries in other regions) to teach an official language that is not a mother tongue of a majority of the population. Countries in this region also offer more instruction in local languages than countries in other regions. Moreover, all countries in the EMENA region (Southern Europe, Middle East, North Africa) offer instruction in an official language; they are also more likely to offer instruction in foreign languages than other regions.

For subjects falling under the category of "social science," we note the following regional differences: (1) Countries in the LAC region (Latin America and the Caribbean) offer more instruction in social studies and less in history and geography than other

Table 1: Proportion of Less-Developed Countries Offering Instruction in Selected Subjects of the Primary School Curriculum by World Region*

Region:	LAC (N=25)	Asia (N=18)	SSA (N=29)	EMENA (N=22)
Combined Lang.	100.0	100.0	100.0	100.0
National Lang.	72.0	94.4	48.3	100.0
Local Lang.	0.0	5.6	20.7	4.6
Foreign Lang.	12.0	22.2	6.9	59.1
Official Lang.	28.0	44.4	89.7	4.5
Mathematics	100.0	100.0	100.0	100.0
Science	100.0	94.4	100.0	100.0
Comb. Social Sci.	100.0	88.9	100.0	100.0
Social Studies	88.0	66.7	51.7	63.6
History	32.0	16.7	55.2	54.6
Geography	32.0	16.7	55.2	50.0
Civics	20.0	27.8	44.8	27.3
Comb.Moral/Rel.	60.0	94.4	82.8	86.4
Religion	48.0	27.8	62.1	68.2
Moral Ed.	32.0	38.9	27.6	27.3
Aesthetic Ed.	92.0	94.4	96.6	95.5
Music	72.0	72.2	89.7	77.3
Art	76.0	83.3	96.6	95.5
Physical Ed.	88.0	94.4	100.0	95.5
Hygiene	52.0	55.6	31.0	31.8
Comb.Voc.Ed.	72.0	55.6	89.7	68.2
Manual	56.0	38.9	44.8	40.9
Agriculture	32.0	16.7	55.2	45.5
Domestic Science	32.0	0.0	55.2	31.8
Voc.Ed.	4.0	5.6	0.0	9.1
Business	4.0	0.0	3.5	4.6
Other	28.0	61.1	31.0	40.9

***Key for Regions:** LAC = Latin America and the Caribbean

EMENA = Southern Europe, Middle East and North Africa

SSA = Sub-Saharan Africa

regions, except countries in Asia which offer the least instruction in history and geography.

(2) Countries in the SSA and EMENA regions offer more instruction in history and geography than other regions. Countries in SSA offer more civics courses than do countries in any other region.

For the peripheral subjects, there is a good deal more regional variation regarding curricular offerings. For example, countries in Asia offer more courses in moral education than countries in other regions (see Cha, Wong and Meyer, 1988). On the other hand, countries in the SSA and EMENA regions offer many more courses in religion. Also interesting is the fact that countries in SSA tend to include at least one course in pre-vocational education (usually in agriculture and/or in domestic science) more often than countries in other regions. Courses in manual training are offered in Latin American and Caribbean countries more often than in other countries. Very few less-developed countries offer a course in "business" or "vocational education" at the primary level. No Asian country offers a course in domestic science.

In Table 2 we examine whether regional variations in course offerings found in Table 1 are related to level of economic development. Overall, Table 2 shows that the effects of per capita income on the propensity to offer specific curricular subjects are small compared to expectations derived from a variety of human capital or modernization theories. Again, among the core subjects, there is little variation across countries at different levels of economic development. All include language, math, science, social science and aesthetic education in the primary curriculum, with a few exceptions (noted above).

There are, however, several interesting differences within core subject areas across income levels. For example, richer LDCs (those in the upper middle-income and high income levels) are more likely to teach in a national language (rather than a local or official language) and offer foreign language instruction in their curricula. By contrast, poorer LDCs include more official and local language instruction in the primary curriculum -- presumably reflecting the greater ethnic diversity of their populations. In addition, we find

Table 2: Proportion of Less-Developed Countries Offering Instruction in Selected Subjects of the Primary School Curriculum by Per Capita Income Level of Country

	Low Income Countries (N=26)	Lower Middle- Income Countries (N=38)	Upper Middle- Income Countries (N=25)	High Income Countries (N=5)
Comb.Lang.	100.0	100.0	100.0	100.0
Nat.Lang.	65.4	68.4	92.0	100.0
Loc.Lang.	11.5	7.9	8.0	0.0
For.Lang.	19.2	10.5	36.0	80.0
Off.Lang.	61.5	50.0	28.0	0.0
Mathematics	100.0	100.0	100.0	100.0
Science	96.1	100.0	100.0	100.0
Comb.Social Sci.	100.0	94.7	100.0	100.0
Social Studies	46.2	81.6	64.0	80.0
History	50.0	31.6	52.0	20.0
Geography	50.0	31.6	48.0	20.0
Civics	38.5	31.6	28.0	0.0
Comb.Moral	84.6	78.9	72.0	100.0
Religion	57.7	47.4	48.0	100.0
Moral Ed.	34.6	29.0	4.0	0.0
Aesthetic Ed.	100.0	89.5	100.0	80.0
Music	84.6	76.3	84.0	40.0
Art	92.3	81.6	96.0	80.0
Physical Ed.	100.0	92.1	92.0	100.0
Hygiene	34.6	44.6	40.0	60.0
Comb.Voc.Ed.	80.8	81.6	52.0	80.0
Manual	53.9	42.1	40.0	60.0
Agriculture	38.5	39.5	12.0	0.0
Domestic Science	38.5	42.1	8.0	60.0
Vocational Ed.	0.0	7.9	4.0	0.0
Business	3.9	0.0	4.0	20.0
Other	34.6	39.5	44.0	20.0

that richer LDCs are less likely to offer a course in civics in their curriculum.

Among the peripheral subjects of primary curricula, additional patterns emerge. For example, richer countries are more likely to offer a course in hygiene and less likely to include a course in moral education. In the area of pre-vocational education, LDCs in the upper middle-income level are much less likely than poorer LDCs to offer a pre-vocational course, whether in the area of agriculture, domestic science or manual training.

Enrollment levels in primary education may affect the content of the curriculum as national educational systems become mass oriented. Table 3 examines the impact of primary enrollment levels by dichotomizing the distribution of LDCs into two categories: those with less than 80% of the relevant age cohort enrolled in primary schools and those with more than 80% enrolled. The picture is similar to what we have seen already -- limited variation in the core subject areas and somewhat more variation in the areas that are less central to the primary curriculum.

The following patterns are suggested in Table 3: Countries with less expanded primary education systems are more likely to use an official (rather than a national) language for instruction. They are also less likely to provide foreign language instruction. In the area of the social sciences, they are more likely to offer traditional subjects such as history, geography and civics rather than a subject called "social studies." There are no differences in the propensity to teach math and science. In peripheral areas of the curriculum, LDCs with lower primary enrollment rates are less likely to offer moral education and more likely to offer instruction in music, art, agriculture and domestic science. Many of the differences noted in Table 3 are similar to those reported in the previous table which examined the impact of level of economic development. We attempt to disentangle these two dimensions in the final table of this series which constructs a typology using GNP growth rates and primary school expansion.

Table 4 examines the distinct impacts of GNP growth rate and the level of primary enrollments. Although we lose about 30 cases in this table, the overall patterns are quite

Table 3: Proportion of Less-Developed Countries Offering Instruction in Selected Subjects of the Primary School Curriculum by the Gross Primary Enrollment Rate

	Gross Primary Enrollment Rate:	
	<u>Less than 80 %</u>	<u>Greater than 80 %</u>
	(N=51)	(N=65)
Combined Lang.	100.0	100.0
National Lang.	84.3	81.5
Local Lang.	11.8	9.2
Foreign Lang.	37.3	26.2
Official Lang.	33.3	38.5
Mathematics	100.0	100.0
Science	98.0	100.0
Combined Social Science	100.0	96.9
Social Studies	52.9	69.2
History	52.9	36.9
Geography	51.0	35.4
Civics	33.3	30.8
Comb.Moral Ed./Religion	66.7	78.5
Religion	49.0	55.4
Moral Education	13.7	15.4
Aesthetic Education	100.0	93.8
Music	90.2	75.4
Art	100.0	89.2
Physical Education	100.0	93.8
Hygiene	25.5	41.5
Combined Vocational Ed.	52.9	76.9
Manual Training	31.4	49.2
Agriculture	19.6	27.7
Domestic Science	31.4	29.2
Vocational Education	0.0	6.2
Business	0.0	4.6
Other	33.3	43.1

Table 4: Proportion of Less-Developed Countries Offering Instruction in Selected Subjects of the Primary School Curriculum by Predicted GNP Growth Rate and Gross Primary Enrollment Rate (PER)*

	Pos. GNP High PER (N=25)	Neg. GNP High PER (N=13)	Pos. GNP Low PER (N=13)	Neg. GNP Low PER (N=9)
Comb.Lang.	100.0	100.0	100.0	100.0
Nat.Lang.	96.0	76.9	76.9	55.6
Loc.Lang.	4.0	38.5	15.4	0.0
For.Lang.	20.0	30.8	15.4	22.2
Off.Lang.	28.0	46.2	38.5	77.8
Mathematics	100.0	100.0	100.0	100.0
Science	100.0	100.0	100.0	100.0
Comb.Social Sci.	100.0	100.0	100.0	100.0
Social Studies	72.0	76.0	61.5	44.5
History	32.0	38.5	46.2	55.6
Geography	32.0	38.5	46.2	55.6
Civics	36.0	30.8	46.2	33.3
Comb.Moral/Rel.	96.0	53.9	84.6	66.7
Religion	52.0	38.5	46.2	44.4
Moral Ed.	24.0	30.8	15.4	22.2
Hygiene	40.0	23.1	53.9	22.2
Aesthetic Ed.	92.0	92.3	100.0	100.0
Music	68.0	76.9	100.0	77.8
Art	92.0	84.6	100.0	100.0
Physical Ed.	92.0	92.3	100.0	100.0
Hygiene	40.0	23.1	53.9	22.2
Comb.Voc.Ed.	72.0	76.9	76.9	88.9
Manual Training	40.0	61.5	46.2	44.4
Agriculture	28.0	23.1	30.8	44.4
Domestic Science	24.0	15.4	46.2	55.6
Vocational Ed.	8.0	0.0	7.7	0.0
Business	4.0	0.0	0.0	0.0
Other	40.0	46.2	30.8	33.3

*Key: Pos.GNP = Positive GNP Growth Rate; Neg.GNP = Negative GNP Growth Rate

similar to those reported earlier. The few interesting patterns to emerge primarily center around differences in GNP growth rates. Countries with positive growth rates are different from their negative growth counterparts in the following ways: (1) they are more likely to teach a national language in the curriculum and less likely to teach an official language; (2) they are more likely to include a course in moral or religious education; and (3) they are more likely to include a course in the area of hygiene.

VI. Curricular Priorities in the 1980s

Our analysis continues by examining the issue of how much emphasis less-developed countries give to different subjects in the primary school curriculum. The question posed here is both straightforward and important: what place does language, math, science, etc. occupy in the official curriculum during the first six years of primary schooling? Or, more specifically, what proportion of total instructional time is allocated (or devoted) to different subjects in official curricular timetables? Having shown that there is a good deal of uniformity in the subjects offered in primary school curricula, we now examine whether countries differ in how much emphasis they give to particular subjects. As before, we organize our discussion according to core (language, math, science, social science, aesthetic education and physical education) and peripheral (moral and religious education, hygiene, vocational education, other) subject areas of the curriculum.

We begin with Table 5 which reports regional variations in curricular emphases. In the core subjects of the curriculum a few regional variations are noteworthy. In the LAC region (Latin America and the Caribbean), language instruction is much less emphasized than in other regions. (For example, El Salvador, Grenada, Honduras, Paraguay and Peru each devote 20 percent or less of their curricula to language instruction). On the other hand, the instructional time this region allocates to math, science and social studies is greater, on the average, than other regions. Countries in Sub-Saharan Africa (SSA) devote, on the average, the greatest proportion of instructional time to language (Extreme examples:

Table 5: Mean Percentage of Total Instructional Time Devoted to Selected Subjects in the Primary School Curricula of Less-Developed Countries by World Region*

Region:	LAC (N=21)	Asia (N=18)	SSA (N=29)	EMENA (N=21)
Comb.Lang.	27.7	37.5	38.2	35.8
Nat.Lang.	16.5	25.1	10.9	29.1
Loc.Lang.	0.0	0.9	2.5	0.6
For.Lang.	0.5	2.3	0.5	4.6
Off.Lang.	8.4	8.5	24.2	1.0
Mathematics	19.1	16.6	17.9	17.1
Science	9.9	7.5	7.2	7.4
Comb.Social Sci.	13.1	7.6	7.8	6.7
Social Studies	8.7	5.3	3.3	3.6
History	1.9	0.5	1.4	1.3
Geography	1.4	0.4	1.6	1.1
Civics	0.7	1.4	1.5	0.5
Comb.Moral/Rel.	3.2	6.3	4.6	10.0
Religion	2.3	2.7	3.8	10.0
Moral Ed.	0.8	3.2	0.8	0.2
Aesthetic Ed.	7.9	9.5	8.5	8.9
Music	3.3	3.9	3.4	3.5
Art	4.3	5.7	5.0	5.4
Physical Ed.	6.1	6.0	5.9	7.1
Hygiene	2.8	1.7	0.9	1.5
Comb.Voc.Ed.	7.6	4.2	7.3	2.8
Manual	3.6	2.7	2.5	1.8
Agriculture	2.0	0.5	2.2	0.2
Domestic Science	1.8	0.3	2.4	0.4
Vocational Ed.	0.0	0.5	0.0	0.4
Business	0.0	0.0	0.1	0.0
Other	1.3	4.0	2.1	2.7

***Key for regions:** LAC : Latin America and the Caribbean
EMENA: Southern Europe, Middle East and North Africa
SSA = Sub-Saharan Africa

Central African Republic, 66 %; Cameroon, 53 %; Swaziland, 51 %). And within the area of language instruction, SSA countries devote a disproportionate amount of time to official languages. In the remaining core areas -- aesthetic education and physical education -- there are no significant regional differences. In almost all LDCs an average of 9 percent of instructional time is allocated to art and music classes and an average of 6 percent of time to physical education classes.

Turning to the peripheral subjects of the curriculum we note several examples of regional variations. The most prominent examples are in the area of moral and religious education. LDCs in the Asian region devote much more time to moral education than any other region (e.g., Thailand, 14%; South Korea, 8%; Vanuatu, 8%; Philippines 7%). LDCs in the Southern Europe, Middle East and North Africa, region (EMENA) place a very heavy emphasis on religion (e.g., Saudi Arabia, 31%; Arab Republic of Yemen, 24%; Oman, 18%; Qatar, 18%; Pakistan, 14%). Finally there is a tendency for countries in the LAC and SSA regions to place greater emphasis on pre-vocational subject matter than countries in other regions. For example, the following countries allocate more than 11 percent of total instructional time to pre-vocational subjects: Benin, Congo, Liberia, Rwanda, Haiti, Panama, Bolivia, and Paraguay.

Table 6 shows that national differences in per capita income do not explain a great deal of the variation in the relative emphasis of curricular subjects. For example, there is no strong relationship between level of development and an emphasis on math and science in the curriculum as many human capital or modernization theories might have predicted. With respect to language, nations at each income level devote about one-third of total instructional time to language instruction. Within the general language category, however, poorer LDCs place less emphasis on national languages and more emphasis on official languages than richer LDCs. There is a slight tendency for religious and moral instruction to decline as the level of per capita income increases, except for a small group of high income, oil-exporting nations in which religious instruction is extremely important. There

Table 6: Mean Percentage of Instructional Time Devoted to Selected Subjects in the Primary School Curricula by Per Capita Income Level of Country

	<u>Developing Countries</u>				<u>Developed Countries</u>	
	Low- Income	Lower Middle- Income	Upper Middle- Income	High Income	Market Economies	Non-Market Economies
	(N=25)	(N=38)	(N=22)	(N=5)	(N=17)	(N=7)
Comb.Lang.	36.5	33.5	35.9	35.3	32.6	37.6
Nat.Lang.	17.8	16.7	23.4	29.7	30.5	32.6
Loc.Lang.	1.3	1.1	1.1	0.0	0.1	0.0
For.Lang.	2.0	1.0	2.2	5.7	1.6	5.0
Off.Lang.	15.5	14.3	5.6	0.0	0.2	0.0
Mathematics	18.2	17.3	18.3	16.1	18.9	20.3
Science	7.4	8.5	8.0	6.2	7.2	7.0
Comb.Soc.Science	7.9	10.1	8.5	4.7	9.7	6.6
Social Studies	3.5	6.7	4.4	4.0	5.8	0.0
History	1.4	1.3	1.5	0.3	1.1	3.5
Geography	1.6	1.0	1.3	0.4	1.3	2.7
Civics	1.4	1.1	0.7	0.0	0.9	0.3
Comb.Moral/Rel.	5.3	5.6	4.3	19.0	4.1	0.0
Religion	4.0	4.3	2.8	17.1	3.5	0.0
Moral Education	1.3	1.3	0.9	0.0	0.5	0.0
Aesthetic Ed.	8.9	7.7	10.7	6.8	14.1	10.5
Music	3.6	3.3	4.2	2.0	5.2	5.2
Art	5.3	4.3	6.4	4.8	8.9	5.3
Physical Ed.	6.8	5.5	6.6	7.5	9.8	9.8
Hygiene	1.1	1.9	1.8	2.6	0.7	0.3
Comb.Voc.Ed.	6.0	7.4	3.1	2.8	0.8	6.5
Manual Training	3.0	2.9	2.1	1.8	0.3	6.0
Agriculture	1.5	2.0	0.4	0.0	0.2	0.3
Domestic Science	1.4	2.0	0.4	1.0	0.3	0.1
Vocational Ed.	0.0	0.5	0.0	0.0	0.0	0.0
Business	0.1	0.0	0.0	0.1	0.0	0.0
Other	2.8	2.6	1.9	0.8	1.8	1.5

is also some evidence that the proportion of time allocated to pre-vocational subjects is greater in poorer LDCs than in richer ones.

Turning to Table 7, we find that primary enrollment expansion does not account for significant differences in curricular emphases. In the core areas of the primary curriculum, in particular, we observe that countries with a primary enrollment rate of more or less than 80 percent allocate approximately the same proportion of instructional time to language, math, science, social science, aesthetic education and physical education. In the peripheral subjects, countries with less expanded primary education systems devote a greater proportion of time to religion, and slightly less time to vocational subjects like manual training. But on the whole, more or less expanded systems of primary education do not appear to offer distinctively different curricular "packages".

Table 8 examines the joint impact of GNP growth rates and primary enrollment levels. Once again, variation across categories is minimal. In the few cases in which variation is apparent, predicted GNP growth rate appears to be the more influential factor. For example, countries with positive GNP growth rates tend to place greater emphasis on national languages (within the combined language category), science, moral and religious education, and aesthetic education than countries with negative GNP growth rates. They also devote less time to manual training within the area of vocational education. The one area in which GNP growth and primary enrollments may have a joint effect is in language instruction. Countries with positive GNP growth rates and high primary enrollment rates allocate the greatest proportion of time to national languages and the least time to official languages. Conversely, countries with negative GNP growth rates and low primary enrollment rates allocate the smallest proportion of time to national languages and the greatest to official languages.

Each of the patterns discussed in this section must be seen in light of the dominant finding that less-developed countries around the world place strikingly similar emphases on the subject matter of primary schooling. Several suggestive patterns have been noted, but

Table 7: Mean Percentage of Total Instructional Time Devoted to Selected Subjects in the Primary School Curricula of Less-Developed Countries by Gross Primary Enrollment Rate (Standard deviations in parentheses)

Gross Primary Enrollment Rate:				
<u>Less than 80 %</u>			<u>Greater than 80 %</u>	
	N=49		N=61	
Combined Lang.	36.3	(9.1)	34.6	(9.6)
National Lang.	24.3	(13.7)	20.9	(12.4)
Local Lang.	1.4	(5.2)	1.1	(4.1)
Foreign Lang.	1.9	(2.9)	1.8	(3.9)
Official Lang.	8.0	(13.6)	9.3	(13.5)
Mathematics	18.5	(3.4)	17.9	(3.6)
Science	7.1	(3.9)	8.0	(3.4)
Comb.Social Sci.	8.8	(3.6)	8.2	(4.2)
Social Studies	4.2	(5.1)	5.1	(4.7)
History	1.6	(1.8)	1.1	(1.9)
Geography	1.7	(1.9)	0.9	(1.6)
Civics	1.1	(2.1)	1.0	(1.9)
Comb.Moral	5.1	(6.3)	5.3	(4.4)
Religion	4.6	(6.5)	4.2	(4.8)
Moral Ed.	0.4	(1.1)	1.2	(2.6)
Aesthetic Ed.	10.4	(4.2)	8.8	(4.4)
Music	4.1	(2.0)	3.4	(2.6)
Art	6.4	(3.1)	5.3	(2.9)
Physical Education	8.1	(3.2)	6.2	(3.3)
Hygiene	0.8	(1.5)	1.8	(2.3)
Comb.Voc.Ed.	3.1	(3.8)	6.0	(5.4)
Manual Training	1.5	(2.7)	2.9	(4.0)
Agriculture	0.6	(1.4)	1.4	(2.6)
Domestic Sci.	0.9	(1.7)	1.3	(2.2)
Vocational Ed.	0.0		0.0	
Business	0.0		0.1	(0.2)
Other	2.1	(4.0)	2.6	(4.3)

Table 8: Mean Percentage of Total Instructional Time Devoted to Selected Subjects in the Primary School Curricula of Less-Developed Countries by Predicted GNP Growth Rate and Gross Primary Enrollment Rate (PER)*

	Pos. GNP High PER	Neg. GNP High PER	Pos. GNP Low PER	Neg. GNP Low PER
	(N=23)	(N=13)	(N=13)	(N=9)
Comb.Lang.	32.2	35.8	35.1	35.3
Nat.Lang.	22.4	19.8	22.1	15.5
Loc.Lang.	0.2	5.2	2.1	0.0
For.Lang.	1.9	2.1	1.6	1.1
Off.Lang.	6.9	8.6	9.3	18.6
Mathematics	16.7	19.9	17.4	17.1
Science	9.0	7.5	9.2	7.1
Comb.Social Sci.	9.5	8.0	8.5	10.3
Social Studies	6.1	5.4	4.8	4.7
History	1.3	0.9	1.1	1.6
Geography	0.9	0.8	1.2	2.1
Civics	1.1	2.0	1.4	1.9
Comb.Moral	6.0	3.4	7.3	3.5
Religion	3.5	2.3	6.7	2.9
Moral Ed.	2.3	1.2	0.6	0.6
Aesthetic Ed.	9.3	8.2	9.6	8.8
Music	3.3	3.5	4.1	3.8
Art	5.8	4.7	5.9	5.0
Physical Ed.	5.6	6.7	7.3	5.5
Hygiene	1.7	1.3	1.5	1.9
Comb.Voc.Ed.	6.3	6.3	4.4	8.3
Manual Training	1.7	4.5	1.5	3.7
Agriculture	1.8	1.1	1.2	1.8
Domestic Science	1.9	0.7	1.2	2.7
Vocational Ed.	0.6	0.0	0.3	0.0
Business	0.1	0.0	0.0	0.0
Other	3.3	2.8	1.6	2.6

*Key: Pos.GNP = Positive GNP Growth Rate; Neg.GNP = Negative GNP Growth Rate

the overall impression is one of a high degree of homogeneity. An important question that needs to be asked at this point is whether the relative homogeneity of the content of primary curricula is a recent phenomenon or whether it has existed for a substantial span of time. This issue we address in the analyses reported below.

VII. Changes in Instructional Offerings, 1960-1985

In this section we examine changes in curricular subject offerings in less-developed countries during the 25 year period between 1960 and 1985 -- a period in which many of the countries in our sample formally received political independence. Since the number of countries for which we have complete curricular information in both periods declines (from about 90 to 53 cases), the generalizability of our conclusions weakens somewhat.

We begin with Table 9 which examines patterns of change in course offerings in four global regions. In the core subject areas of the curriculum (language, math, science, social science, art and music and physical education), there was a clear movement toward increased convergence during this period. With the possible exception of physical education, the trend for almost all countries in these regions was to offer at least one course in each of these core areas by the 1980s.

Within certain core subject categories, several patterns are apparent. For example, in Asia and in Sub-Saharan Africa (SSA) course offerings in local languages declined over this period (e.g., in Congo, Lesotho, Tanzania, Indonesia and the Philippines) while offerings in foreign languages increased (e.g., in Nigeria, Sri Lanka, and Nepal). In addition, a substantial increase in the proportion of LDCs offering courses called "social studies" is noticeable in every region (specific examples include Ghana, Madagascar, Nigeria, Zimbabwe, Nicaragua, Argentina, Paraguay, Indonesia, Iraq, Syria, and Turkey). At the same time, there was a marked decline in the prevalence of history and geography classes. In the area of aesthetic education, the proportion of countries in Asia offering courses in art and, especially, music declined (e.g., India, Indonesia, Nepal, Philippines,

Table 9: Proportion of Less-Developed Countries Offering Instruction in Selected Subjects of the Primary School Curriculum by World Region, 1960s and 1980s (Constant Cases)

Region:	LAC (N=11)		Asia (N=12)		SSA (N=15)		EMENA (N=15)	
	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>
Comb.Lang.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nat.Lang.	90.9	90.9	100.0	100.0	40.0	46.7	100.0	100.0
Loc.Lang.	0.0	0.0	25.0	8.3	40.0	26.7	0.0	6.7
For.Lang.	9.1	18.2	16.7	25.0	6.7	13.3	46.7	53.3
Off.Lang.	9.0	9.0	25.0	33.3	86.7	86.7	6.7	0.0
Mathematics	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Science	100.0	100.0	91.2	100.0	100.0	100.0	86.7	100.0
Comb.Social Sci.	100.0	100.0	91.7	100.0	93.3	100.0	100.0	100.0
Social Studies	54.6	81.8	50.0	66.7	26.7	60.0	13.3	53.3
History	54.6	36.4	41.7	33.3	80.0	46.7	93.3	53.3
Geography	54.6	36.4	41.7	25.0	60.0	46.7	93.3	53.3
Civics	45.5	9.1	25.0	25.0	46.7	40.0	33.3	33.3
Comb.Moral/Rel.	63.6	63.6	83.3	91.7	86.7	86.7	86.7	80.0
Religion	36.4	54.6	25.0	41.7	66.7	66.7	86.7	80.0
Moral Ed.	45.5	36.4	75.0	66.7	26.7	20.0	20.0	13.3
Aesthetic Ed.	100.0	100.0	100.0	91.7	93.3	100.0	93.3	100.0
Music	81.9	90.9	91.7	58.3	86.7	86.7	86.7	80.0
Art	100.0	81.8	91.7	83.3	93.3	100.0	93.3	100.0
Physical Ed.	90.9	90.9	100.0	91.7	93.3	100.0	100.0	93.3
Hygiene	54.6	36.4	50.0	58.3	53.3	40.0	40.0	53.3
Comb.Voc.Ed.	90.9	100.0	66.7	58.3	86.7	93.3	46.7	66.7
Manual Training	45.5	81.8	33.3	50.0	40.0	26.7	40.0	40.0
Agriculture	54.6	45.5	33.3	16.7	60.0	80.0	6.7	6.7
Domestic Sci.	72.7	54.6	41.7	16.7	40.0	66.7	26.7	26.7
Vocational Ed.	27.3	9.1	8.3	8.3	0.0	0.0	0.0	13.3
Business	9.1	9.1	0.0	0.0	0.0	0.7	0.0	0.7
Other	18.2	27.3	16.7	58.3	46.7	33.3	33.3	40.0

***Key for Regions:** LAC : Latin America and the Caribbean
EMENA: Southern Europe, Middle East and North Africa
SSA = Sub-Saharan Africa

Thailand). Trends in other regions were mixed.

With respect to the peripheral subjects of the curriculum, moral education was the only subject that declined in every LDC region during this period. In other specific areas, longitudinal trends varied across region. For example, more countries in Asia and Latin America offered courses in religion in the 1980s than did so in the 1960s (e.g., Honduras, Bolivia, Suriname, Indonesia and Malaysia). Courses in hygiene became less prevalent in both LAC and SSA, but more prevalent in Asia and EMENA. There were significant decreases in course offerings in manual training in Sub-Saharan Africa (e.g., Liberia, Sudan and Tanzania) and in domestic science in Asia and LAC (e.g., El-Salvador, Nicaragua, Chile, Columbia, India, Indonesia, and Nepal). On the other hand, there was a substantial increase in the number of Latin American and Caribbean countries offering a primary-level course in manual training (e.g., El-Salvador, Bolivia, Chile, Columbia, and Suriname).

These patterns of change from the 1960s to the 1980s are generally consistent for LDCs at different levels of development (see Table 10). Course offerings in foreign languages increase in countries at all levels of development -- except in the three high income LDCs. Science gains wherever it was not already taught as a special subject. Courses in "social studies" increase everywhere at the expense of history and geography. Religion also gains slightly in all but the three richest countries where it was already universally taught.

When we examine changes in course offerings by rates of primary school education (see Table 11), the basic patterns in foreign language (an increase), science (an increase), social science (an increase), history and geography (a decrease), moral education (a decrease) and vocational education (an increase) are, once again, apparent. Three relatively minor trends stand out between these two groups of less-developed countries. First, the decline in history and geography is much sharper in countries with high (over 80%) primary enrollment rates than those with low enrollment rates. Second, course offerings in

Table 10: Proportion of Less-Developed Countries Offering Instruction in Selected Subjects of the Primary School Curriculum by Per Capita Income Level, 1960s and 1980s (Constant Cases)

	Developing Countries							
	Low-Income		Lower Middle-Income		Upper Middle-Income		High Income	
	(N=16)		(N=20)		(N=14)		(N=3)	
	<u>60s</u>	<u>80s</u>	<u>60s</u>	<u>80s</u>	<u>60s</u>	<u>80s</u>	<u>60s</u>	<u>80s</u>
Comb.Lang.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nat.Lang.	75.0	75.0	80.0	80.0	85.7	92.9	100.0	100.0
Loc.Lang.	12.5	12.5	25.0	10.0	14.3	14.3	0.0	0.0
For.Lang.	18.8	25.0	5.0	15.0	35.7	42.9	66.7	66.7
Off.Lang.	50.0	50.0	30.0	30.0	28.6	28.6	0.0	0.0
Mathematics	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Science	93.8	100.0	100.0	100.0	92.9	100.0	66.7	100.0
Comb.Social Sci.	93.8	100.0	95.0	100.0	100.0	100.0	100.0	100.0
Social Studies	37.5	56.3	45.0	80.0	21.4	50.0	0.0	66.7
History	62.5	43.8	65.0	30.0	78.6	64.3	100.0	33.3
Geography	50.0	37.5	60.0	30.0	78.6	64.3	100.0	33.3
Civics	31.3	31.3	35.0	35.0	42.9	28.6	0.0	33.3
Comb.Moral/Rel.	87.5	87.5	80.0	80.0	71.4	71.4	100.0	100.0
Religion	50.0	56.2	55.0	60.0	57.1	64.3	100.0	100.0
Moral Ed.	50.0	31.3	35.0	35.0	42.9	28.6	0.0	33.3
Aesthetic Ed.	93.8	100.0	100.0	95.0	100.0	100.0	66.7	100.0
Music	87.5	75.0	90.0	80.0	85.7	85.7	66.7	66.7
Art	87.5	93.8	100.0	90.0	100.0	92.9	100.0	100.0
Physical Ed.	93.8	100.0	95.0	90.0	100.0	92.9	100.0	100.0
Hygiene	37.5	37.5	50.0	45.0	50.0	57.1	100.0	66.7
Comb.Voc.Ed.	81.3	87.5	80.0	90.0	57.1	57.1	33.3	66.7
Manual Training	50.0	50.0	40.0	45.0	35.7	50.0	0.0	33.3
Agriculture	56.3	50.0	45.0	45.0	14.3	21.4	0.0	0.0
Domestic Science	37.5	43.8	60.0	50.0	28.6	21.4	33.3	66.7
Voc.Ed.	0.0	0.0	10.0	15.0	14.3	7.1	0.0	0.0
Business	0.0	6.3	0.0	0.0	7.1	7.1	0.0	33.3
Other	25.0 ^a	37.5	30.0	40.0	35.7	50.0	33.3	0.0

Table 11: Proportion of Less-Developed Countries Offering Instruction in Selected Subjects of the Primary School Curriculum by Gross Primary Enrollment Rate, 1960s and 1980s (Constant Cases)

	Gross Primary Enrollment Rate:			
	<u>Less than 80 %</u>		<u>Greater than 80 %</u>	
	(N=36)		(N=39)	
	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>
Combined Language	100.0	100.0	100.0	100.0
National Lang.	86.1	88.9	89.7	89.7
Local Lang.	8.3	11.1	15.4	12.8
Foreign Lang.	38.9	47.2	23.1	30.8
Official Lang.	33.3	25.0	25.6	25.6
Mathematics	100.0	100.0	100.0	100.0
Science	86.1	97.2	94.9	100.0
Combined Social Science	94.4	100.0	97.4	100.0
Social Studies	19.4	52.8	33.3	66.7
History	75.0	52.8	71.8	41.0
Geography	69.4	47.2	71.8	38.5
Civics	27.8	25.0	38.5	28.2
Comb.Moral/Religion	75.0	66.7	76.9	79.5
Religion	63.9	58.3	53.9	61.5
Moral Education	13.9	8.3	41.0	35.9
Aesthetic Ed.	94.4	100.0	100.0	97.4
Music	91.7	88.9	89.7	79.5
Art	91.7	100.0	97.4	89.7
Physical Ed.	91.7	100.0	97.4	92.3
Hygiene	19.4	25.0	48.7	48.7
Comb.Voc.Ed.	75.0	58.3	74.4	79.5
Manual Training	41.7	36.1	41.0	48.7
Agriculture	22.2	22.2	35.9	33.3
Domestic Science	47.2	30.6	48.7	41.0
Vocational Ed.	5.6	0.0	7.7	10.3
Business	0.0	0.0	2.6	7.7
Other	27.8	38.9	30.8	41.0

art, physical education and domestic science decrease in the former, while they increase in the latter. Third, there is a decline in the proportion of low enrollment countries offering classes in hygiene, but no change in the proportion of high enrollment countries offering this class.

Finally, we examine changes in course offerings in countries according to predicted GNP growth rates and levels of mass education. Table 12 does not reveal any consistent patterns. One of the problems with this table is the small number of cases (N=40) with complete longitudinal data. A few deviant patterns emerge -- local language courses grow in countries with negative growth and high enrollment rates, for example -- but overall the data are notable for the lack of distinctive patterns. In the final analysis section below, we explore temporal changes in the relative emphasis of different subjects in the primary school curriculum.

VIII. Changes in Curricular Priorities, 1960-1985

In our previous analysis of the most recent period (see section VI), we found there to be a surprising degree of homogeneity in the amount of time less-developed countries allocate to different subjects of the primary school curriculum. Most LDCs, irrespective of income level, regional location or mass educational expansion, devote approximately one-third of their primary school curriculum to language instruction, one-sixth to math, one-tenth (each) to science, art and music, and social science and about one-twentieth (each) to moral and religious education, physical education, and all pre-vocational subjects. Hygiene, when it is offered, receives only a minimum amount of instructional time (less than 2 percent).

In this section we examine shifts in these curricular time allocations over the past twenty-five years. Once again, we present four tables reporting longitudinal trends broken down by world region, income level, primary enrollment expansion and a specially constructed typology integrating GNP growth rates with educational expansion. Table 13

Table 12: Proportion of Less-Developed Countries Offering Instruction in Selected Subjects of the Primary School Curriculum by Predicted GNP Growth Rate and Primary Enrollment Rate (PER), 1960s and 1980s (Constant Cases)*

	Pos. GNP High PER (N=19)		Neg. GNP High PER (N=7)		Pos. GNP Low PER (N=8)		Neg. GNP Low PER (N=6)	
	<u>1960s</u>	<u>1980s</u>	<u>60s</u>	<u>80s</u>	<u>60s</u>	<u>80s</u>	<u>60s</u>	<u>80s</u>
Comb.Lang.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nat.Lang.	94.7	100.0	71.4	71.4	75.0	75.0	50.0	50.0
Loc.Lang.	21.1	5.3	28.6	57.1	12.5	12.5	16.7	0.0
For.Lang.	10.5	21.1	14.3	42.9	25.0	25.0	0.0	16.7
Off.Lang.	26.3	21.1	57.1	57.1	37.5	37.5	50.0	83.3
Mathematics	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Science	94.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Comb.Social Sci.	100.0	100.0	85.7	100.0	87.5	100.0	100.0	100.0
Social Studies	52.6	68.4	70.0	71.4	37.5	62.5	66.7	66.7
History	57.9	31.6	85.7	42.9	50.0	37.5	66.7	33.3
Geography	57.9	31.6	85.7	42.9	50.0	37.5	33.3	33.3
Civics	31.6	26.3	57.1	28.6	37.5	37.5	50.0	16.7
Comb.Moral/Rel.	89.5	94.7	57.1	57.1	87.5	75.0	83.3	66.7
Religion	63.2	68.4	28.6	42.9	62.5	75.0	33.3	33.3
Moral Ed.	57.9	47.4	28.6	28.6	37.5	0.0	50.0	33.3
Aesthetic Ed.	100.0	94.7	100.0	100.0	100.0	100.0	100.0	100.0
Music	89.5	73.7	85.7	85.7	100.0	100.0	83.3	66.7
Art	94.7	94.7	100.0	85.7	100.0	100.0	100.0	100.0
Physical Ed.	100.0	89.5	100.0	100.0	100.0	100.0	83.3	100.0
Hygiene	42.1	42.1	57.1	42.9	75.0	37.5	33.3	66.7
Comb.Voc.Ed.	73.7	73.7	85.7	85.7	50.0	87.5	100.0	83.3
Manual Training	36.8	42.1	57.1	57.1	25.0	50.0	66.7	33.3
Agriculture	42.1	31.6	28.6	42.9	25.0	37.5	83.3	50.0
Domestic Sci.	57.9	36.8	57.1	28.6	25.0	50.0	50.0	50.0
Voc.Ed.	10.5	10.5	0.0	0.0	12.5	12.5	0.0	0.0
Business	5.3	5.3	0.0	0.0	0.0	0.0	0.0	0.0
Other	26.3	42.1	57.1	57.1	12.5	37.5	16.7	16.7

*Key: Pos.GNP = Positive GNP Growth Rate; Neg.GNP = Negative GNP Growth Rate

reports shifts in curricular time allocations between the 1960s and the mid-1980s in four world regions. What is most striking about this table is how small are the shifts in the time allocated to both general and specific subjects. For example, total time for language instruction suffered a small decline in every region, except Asia. Both math and science made small, but noticeable gains throughout the developing world (the surprising exception being science instruction in Asia). Curricular time devoted to social studies increased everywhere during this period -- again at the expense of history and geography. On the other hand, curricular time for art classes decreased in every region. The emphasis on religious instruction increased in Asia but elsewhere, it declined. These changes, however, are relatively small. While there were individual countries that made significant changes in the overall composition of the primary curriculum, there are few dramatic longitudinal shifts to be reported at the regional level.

Table 14 examines shifts in the relative emphases of subjects for countries at different levels of economic development. Since there are so few cases in the high income category, we mainly focus on patterns in the low-income, lower middle-income and upper middle-income categories. Several instances of growing convergence are noticeable in this table. For example, in the 1960s, low-income countries emphasized national languages much less than upper middle-income countries, but by the 1980s countries at all income levels were allocating approximately 20 percent of curricular time to national languages. Low-income countries still devote more time to official languages than middle-income countries, but the gap has narrowed. In the area of math, low-income countries have substantially increased the time allocated to this subject, to a level equal to that of lower and upper middle-income countries. LDCs at each income level devote, on the average, more time to science in the 1980s than in the 1960s; and once again the gap between countries at different income levels has narrowed.

In other areas of the primary curriculum, an emphasis on social studies is more prevalent today than in the past while an emphasis on history and geography is less

Table 13: Mean Percentage of Total Instruction Time Devoted to Selected Subjects in the Primary School Curricula of Less-Developed Countries by Region, 1960s and 1980s (Constant Cases)

Region:	LAC (N*=8-11)		Asia (N=10-12)		SSA (N=14-15)		EMENA (N=12-15)	
	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>
Comb.Lang.	25.3	24.1	33.0	33.1	38.6	37.6	38.1	35.0
Nat.Lang.	22.5	21.1	24.9	25.5	8.0	10.5	32.9	29.6
Loc.Lang.	0.0	0.0	2.5	1.4	3.8	3.0	0.0	0.9
For.Lang.	0.2	0.6	1.4	2.0	0.8	1.0	2.8	4.1
Off.Lang.	0.0	0.0	4.3	4.3	25.9	23.2	2.2	0.0
Mathematics	18.2	19.1	15.4	17.2	15.1	17.5	16.6	17.5
Science	9.9	12.3	8.1	7.9	5.2	7.0	7.1	7.8
Comb.Social Sci.	11.5	12.3	7.7	8.3	7.6	6.4	7.0	6.5
Social Studies	6.4	9.3	4.2	5.9	1.4	3.3	0.8	3.7
History	2.0	1.4	1.4	0.8	2.3	1.1	2.9	1.0
Geography	2.0	1.3	1.4	0.6	1.9	1.3	2.7	1.0
Civics	1.0	0.3	0.7	1.0	1.8	0.8	0.6	0.5
Comb.Moral	2.9	2.7	5.2	6.2	6.6	5.0	10.9	9.8
Religion	1.8	1.3	1.2	2.3	5.9	4.5	10.6	9.5
Moral Ed.	1.3	1.1	3.7	3.4	0.6	0.5	0.2	0.3
Aesthetic Ed.	10.8	7.8	11.6	10.4	9.0	9.4	9.9	9.5
Music	4.1	3.9	5.4	3.7	3.1	3.8	3.6	3.7
Art	6.7	4.0	6.5	6.3	5.9	5.5	6.3	5.9
Physical Ed.	5.7	6.8	8.0	5.2	5.7	6.2	6.6	7.0
Hygiene	3.5	2.3	1.4	2.1	2.3	0.9	1.3	1.4
Comb.Voc.Ed.	11.5	11.2	8.5	5.1	7.1	7.7	3.2	3.1
Manual Training	2.3	4.7	2.8	3.3	2.3	1.4	2.2	2.0
Agriculture	3.7	2.8	4.0	0.6	2.9	3.3	0.0	0.2
Domestic Science	3.9	3.0	2.4	0.5	1.5	2.9	1.1	0.4
Vocational Ed.	2.5	0.0	0.4	0.8	0.0	0.0	0.0	0.6
Business	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Other	1.4	1.3	2.3	3.9	3.5	2.2	1.0	3.0

* The number of cases may vary by subject. This can happen since the exact time allocated to a given subject is unavailable in some cases, but only whether or not the subject is offered.

Table 14: Mean Percentage of Total Instruction Time Devoted to Selected Subjects in the Primary School Curricula of Less-Developed Countries by Per Capita Income Level, 1960s and 1980s (Constant Cases)

	Developing Countries								Developed Countries			
	Low-Income		Lower Middle-Income		Upper Middle-Income		High Income		Market Economies		Non-Market Economies	
	(N=14-16)		(N=18-20)		(N=10-14)		(N=2-3)		(N=17)		(N=5-7)	
	60s	80s	60s	80s	60s	80s	60s	80s	60s	80s	60s	80s
Comb.Lang.	37.3	35.3	31.8	31.6	34.9	33.0	38.7	35.4	36.1	31.8	45.4	38.7
Nat.Lang.	17.4	19.4	21.5	21.1	23.3	21.0	33.8	30.2	33.5	29.4	38.3	32.6
Loc.Lang.	0.9	1.2	2.4	1.4	1.9	2.1	0.0	0.0	0.0	0.2	0.0	0.0
For.Lang.	1.9	2.1	0.4	1.5	1.6	1.9	4.8	5.2	1.8	2.0	5.5	5.0
Off.Lang.	16.4	11.6	7.6	8.2	4.4	3.9	0.0	0.0	2.0	0.3	0.0	0.0
Mathematics	15.2	17.9	16.1	17.8	17.8	17.8	15.8	16.0	16.4	19.0	22.1	20.3
Science	5.7	7.7	8.6	9.3	7.7	8.3	4.9	5.6	6.9	7.0	6.5	7.0
Comb.Social Sci.	7.0	6.9	9.4	9.3	8.8	8.4	4.9	4.1	7.7	9.6	7.4	6.6
Social Studies	2.5	4.3	3.8	6.8	2.3	4.2	0.0	3.0	0.9	5.6	0.0	0.0
History	2.0	1.0	2.0	0.9	2.6	1.7	3.0	0.6	2.0	1.2	3.7	3.5
Geography	1.7	1.1	1.9	0.7	2.6	1.7	1.9	0.6	3.0	1.5	3.7	2.7
Civics	0.9	0.6	1.4	0.9	0.9	0.4	0.0	0.0	1.5	1.0	0.0	0.3
Comb.Moral/Rel.	6.6	4.7	5.5	5.6	4.8	5.2	23.1	19.3	7.3	4.4	0.0	0.0
Religion	4.8	4.4	4.3	3.8	3.2	2.9	18.6	16.2	7.3	4.1	0.0	0.0
Moral Ed.	1.8	0.8	0.9	1.5	1.4	1.3	0.0	33.3	0.0	0.3	0.0	0.0
Aesthetic Ed.	8.9	10.1	10.9	8.0	10.8	10.5	7.9	10.4	10.3	14.3	10.2	10.5
Music	4.0	3.8	3.9	3.5	4.3	4.4	2.0	3.4	4.9	5.1	4.8	5.2
Art	5.2	6.0	7.0	4.5	6.5	6.1	5.9	7.0	5.4	9.3	5.5	5.3
Physical Ed.	7.1	6.7	6.2	4.9	6.5	8.1	4.6	7.8	7.9	9.9	7.8	9.8
Hygiene	1.2	0.9	2.8	1.9	2.2	2.0	1.0	2.0	0.0	0.6	0.0	0.3
Comb.Voc.Ed.	9.4	6.3	8.3	8.6	3.4	4.5	2.9	2.0	5.6	0.8	2.2	6.5
Manual Training	3.6	2.7	2.2	2.7	1.5	2.9	0.0	0.6	2.8	0.4	2.0	6.0
Agriculture	4.2	1.8	2.8	2.5	0.6	0.8	0.0	0.0	0.1	0.2	0.0	0.3
Domestic Sci.	2.2	1.8	2.0	2.4	1.8	0.7	2.9	1.2	2.6	0.1	0.2	0.1
Voc.Ed.	0.0	0.0	0.9	1.0	0.7	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Business	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Other	1.6	3.1	1.9	3.0	3.4	2.2	0.9	0.0	1.7	2.2	0.0	0.9

prevalent. Curricular time devoted to religion has declined in countries at all income levels. Instruction in aesthetic education has increased slightly in low-income and high-income countries during this period, but decreased somewhat in middle-income countries. Physical education continues to receive the weakest relative emphasis in lower middle-income countries. In the 1960s poorer LDCs placed greater emphasis on pre-vocational subjects than richer LDCs, although this is much less the case in the 1980s. There is little evidence of a strong link or correspondence between the type of economy and the relative emphasis of vocational subjects. For example, curricular time devoted to agricultural training actually declines in the poorest, most agriculturally based economies and an emphasis on manual training is not more prevalent in the industrial-based economies of lower and upper middle-income countries. Overall this table suggests that while differences in per capita income were an important source in determining the composition of the curriculum in the 1960s, the impact of this factor has weakened considerably in the present period.

In Table 15 we examine shifts in curricular emphases in countries with low and high enrollment levels in primary education. Most of the longitudinal shifts which occur in these two groups of countries are similar to those just previously discussed. This is not surprising since gross primary enrollment rates are positively correlated with per capita income levels. A few deviant trends are apparent in peripheral subjects, e.g., religious and moral instruction declined in the low enrollment systems but did not change in the high enrollment systems; aesthetic education increased slightly in the former but declined in the latter. But the overall pattern of increased homogeneity in curricular emphases is the most striking feature of this table.

The last table we present examines the joint impact of primary enrollment level and GNP growth rate. Since the number of cases in Table 16 are very small, the results have limited generalizability. Concentrating on the two extreme categories of this typology -- positive GNP growth rates and high enrollment levels vs. negative GNP growth rates and

Table 15: Mean Percentage of Total Instruction Time Devoted to Selected Subjects in the Primary School Curricula of Less-Developed Countries by Gross Primary Enrollment Rate, 1960s and 1980s (Constant Cases)

	Gross Primary Enrollment Rate:			
	<u>Less than 80 %</u>		<u>Greater than 80 %</u>	
	(N=34-36)		(N=34-38)	
	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>
Combined Lang.	38.0	35.2	34.0	32.1
National Lang.	26.1	25.5	24.4	22.9
Local Lang.	0.2	1.4	1.7	1.6
Foreign Lang.	2.2	2.5	1.4	2.0
Official Lang.	9.9	5.6	5.4	4.5
Mathematics	17.0	18.8	16.3	17.8
Science	6.1	7.2	7.4	8.2
Comb.Social Science	7.7	8.2	8.5	8.1
Social Studies	1.6	4.4	2.7	5.3
History	2.5	1.5	2.3	1.0
Geography	2.7	1.6	2.3	1.0
Civics	0.9	0.6	1.1	0.7
Comb.Moral/Religion	6.6	4.7	5.3	5.6
Religion	6.4	4.7	3.8	3.8
Moral Ed.	0.4	0.3	1.4	1.4
Aesthetic Ed.	9.3	11.1	10.6	9.5
Music	4.0	4.2	4.1	3.9
Art	5.4	6.8	6.5	5.6
Physical Ed.	7.3	8.4	6.5	6.3
Hygiene	0.6	0.6	2.2	1.8
Comb.Voc.Ed.	5.3	3.3	7.8	7.0
Manual Training	2.3	1.7	2.6	2.9
Agriculture	0.8	0.7	2.7	1.9
Domestic Science	2.0	0.9	2.4	1.7
Vocational Ed.	0.1	0.0	0.6	0.5
Business	0.0	0.0	0.0	0.0
Other	1.8	2.3	2.2	2.9

Table 16: Mean Percentage of Total Instruction Time Devoted to Selected Subjects in the Primary School Curricula of LDCs by Predicted GNP Growth Rate and Primary Enrollment Rate (PER), 1960s and 1980s* (Constant Cases)

	Pos. GNP High PER		Neg. GNP High PER		Pos. GNP Low PER		Neg. GNP Low PER	
	(N=17-19)		(N=6-7)		(N=7-8)		(N=5-6)	
	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>	<u>1960s</u>	<u>1980s</u>
Comb.Lang.	34.1	30.7	35.1	35.9	34.6	33.1	32.9	36.0
Nat.Lang.	25.1	24.8	17.4	16.2	16.6	18.1	12.3	14.7
Loc.Lang.	2.6	0.3	2.2	7.7	2.0	1.7	0.8	0.0
For.Lang.	0.6	1.8	0.4	2.1	2.7	2.5	0.0	1.4
Off.Lang.	5.3	4.1	15.0	9.9	13.3	10.7	19.8	19.9
Mathematics	16.3	17.1	16.0	18.5	15.8	17.6	13.2	18.3
Science	7.9	8.9	7.0	6.1	7.9	10.9	7.1	7.9
Comb.Social Sci.	9.0	9.2	7.9	6.7	6.6	7.7	8.3	9.6
Social Studies	4.4	6.3	0.0	4.2	4.1	5.4	3.0	7.1
History	1.9	1.0	3.4	1.2	0.9	0.8	1.9	0.8
Geography	2.0	1.0	3.0	1.0	1.0	0.8	0.5	1.2
Civics	0.7	0.9	1.5	0.4	0.7	0.7	2.9	0.5
Comb.Moral/Rel.	6.2	6.6	3.1	4.1	5.9	4.0	5.6	3.0
Religion	4.0	3.8	2.2	3.1	6.0	5.2	2.9	2.1
Moral Ed.	2.0	2.3	0.9	1.1	0.6	0.0	2.6	0.9
Aesthetic Ed.	10.3	9.3	10.4	9.5	12.5	10.7	8.6	9.3
Music	4.4	3.6	3.9	4.5	4.5	4.2	3.2	3.8
Art	5.9	5.7	6.5	5.0	8.1	6.5	6.0	5.0
Physical Ed.	7.1	5.2	6.2	7.7	8.1	7.1	5.3	5.5
Hygiene	1.4	2.3	3.3	0.7	2.6	1.2	0.9	2.1
Comb.Voc.Ed.	7.7	7.1	6.3	7.1	4.3	5.0	16.3	8.5
Manual Training	2.1	1.6	2.6	4.0	1.5	1.8	5.9	3.9
Agriculture	2.8	2.2	1.5	2.1	1.3	1.3	6.3	2.1
Domestic Science	2.9	2.2	1.6	0.8	0.9	1.4	4.1	2.5
Vocational Ed.	0.5	0.8	0.0	0.0	0.5	0.5	0.0	0.0
Business	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Other	1.0	4.1	6.3	3.0	1.0	1.4	1.4	1.4

*Key: Pos.GNP = Positive GNP Growth Rate; Neg.GNP = Negative GNP Growth Rate

low enrollment levels -- the following patterns may be noted. Fast developing countries with strong primary school systems continue to place more emphasis on national languages and less emphasis on official languages than slow developing countries with weak primary education systems. Both types of countries have increased curricular time allocations to math, science, social science (mainly social studies) and hygiene. In several peripheral subjects, divergent trends are found. For example, countries in the former category placed greater emphasis on moral education and lesser emphasis on aesthetic, physical and vocational education while countries in the latter category did just the opposite. These changes in subject emphases are generally small, except for pre-vocational education where there was a sharp decline among countries with negative growth rates and low enrollment levels. Overall the constructed typology does not appear to be a salient mechanism for explaining shifts in curricular emphases during this period.

IX. Cross-National Variation in Annual Instructional Time

Up to this point, our study of the curricular content of primary education has examined information referring to either the presence or absence of subjects taught during primary schooling or the relative emphasis of each subject in the official curriculum. These analyses suggest that there is a good deal of official consensus at the world level as to what subject areas primary school curricula should contain and how much emphasis should be placed on each subject in official weekly time allocations. It is clear, however, that such general indicators of organization of the primary curriculum mask significant country differences of other key curriculum-related variables: for example, the amount of actual time spent on instruction; the specific content that is taught to pupils in each subject category; the proportion of students exposed to the same curricular content in the country; the knowledge or skills that pupils are required to learn for examinations; and the textbooks and other instructional materials that may or may not be accessible to pupils. A comparative assessment of these aspects of primary schooling demands a much more extensive and

detailed examination of curricular materials than is presently possible.

One aspect of national primary curricula for which we have been able to compile comparable data is the length of the school year. Using a variety of international and national sources we have developed preliminary estimates for about 70 countries (61 of which are developing countries) of the total amount of class or instructional time (in hours) during an "average" year of the elementary school cycle (grades 1-6). Figures for this variable, which refer to the mid-1980s, are calculated by multiplying the number of hours of weekly class time by the number of weeks in the school year.

Table 17 reports basic descriptive statistics on annual instructional time for the world as a whole, for developing countries broken down by four world regions, and for a group of developed countries. These estimates of annual hours of instruction range from 544 to 1200, with a global mean of 866 hours of instruction during a "typical" year of elementary education. Surprisingly, the mean difference in annual hours of instruction between developing and developed countries is very small (865.7 hours versus 868.3 hours), perhaps due to the limited number of developed countries (N=9) for which we have accurate information.

Developing countries in the EMENA region (Southern Europe, Middle East and North Africa) have, on the average, the longest school terms (over 900 annual hours of instruction); followed by Asian countries with about 876 hours of instruction and finally countries in the SSA and LAC regions which tend to have the shortest school years in terms of total hours of instruction (847 hours and 839 hours, respectively). Countries with unusually long school terms (more than 1050 hours) include: Saudi Arabia, Seychelles, Papua/New Guinea, Cameroon, Morocco, Nepal, Syria and the Arab Republic of Yemen; countries with relatively short school terms (less than 690 hours) include: Qatar, South Korea, Ghana, Central African Republic, Laos, Mozambique, Tunisia, and the Maldives.

Many scholars and policy makers assume that countries with lower per capita incomes and less-expanded educational systems will have shorter school years because of the costs

Table 17: Average Annual Hours of Instruction at the Primary Level (Grades 1-6) in the 1980s by World Region, Per Capita Income of Country, and Level of Primary Enrollment Expansion

	World Region*					
	<u>Developing Countries:</u>				Developed Countries	World Totals
	SSA	Asia	EMENA	LAC		
Mean value	846.7	875.8	902.9	839.4	868.3	866.1
Standard Deviation	155.4	155.7	174.3	78.4	132.9	141.1
Range: Minimum	611	608	544	720	664	544
Maximum	1152	1091	1200	979	1041	1200
Number of Cases	(N=15)	(N=15)	(N=15)	(N=16)	(N=9)	(N=70)

***Key for Regions:** LAC = Latin America and the Caribbean
 EMENA = Southern Europe, Middle East and North Africa
 SSA = Sub-Saharan Africa

**Table 18: Average Annual Hours of Instruction at the Primary Level (Grades 1-6) in the 1980s
by Per Capita Income of the Country and Level of Primary Enrollment Expansion**

Per Capita Income Level:

	<u>Developing Countries</u>				Developed Countries	World Totals
	Low- Income	Lower Middle- Income	Upper Middle- Income	High- Income		
Mean value	800.9	926.6	834.7	884.1	868.3	866.1
Standard Deviation	127.8	129.9	107.2	223.7	132.9	141.1
Number of Cases	(N=18)	(N=24)	(N=13)	(N=6)	(N=9)	(N=70)

**Gross Primary Enrollment Rate
(only developing countries):**

	<u>Less than 80 %</u>	<u>Greater than 80 %</u>	<u>Totals</u>
Mean value	881.0	855.4	862.3
Standard Deviation	172.4	130.0	141.6
Number of Cases	(N=15)	(N=40)	(N=55)

and financial requirements involved. Preliminary analyses reported in Table 18 provide little support for this assumption. As the top portion of the Table indicates, there is no direct relationship between level of development and the length of school year: while low-income countries have among the shortest annual school terms, lower middle-income countries have among the longest ones, even longer than the average developed country. Furthermore, the figures in the bottom portion of Table 18 show that countries with lower primary enrollment rates provide, on the average, more hours of instruction during a typical year of primary schooling than countries with higher enrollment rates. Both of these patterns call into question the notion that certain curricular provisions are severely restricted in developing countries with limited economic and educational resources.

Overall, it should be reiterated that the data analysed in this section are preliminary in nature and require further scrutiny and standardization. Also, patterns reported here between social and economic modernization and annual instructional time need not necessarily obtain for earlier historical periods. Indeed, evidence from earlier periods is important not only as a check on contemporary relationships, but also as a means of investigating the idea that national variation in annual hours of instruction -- for example, in the areas of mathematics and science -- has a significant long-term impact on the economic prosperity of countries.

X. Conclusion

In this report we have examined official policies concerning primary education curricula across a large sample of less-developed countries. We have presented contemporary data on the subjects included in national primary curricula, the percentage of instructional time allocated to given subjects, and the actual amount of annual instructional time during the primary school years. We have also looked at shifts in the content of primary curricula during a particularly formative period for many of these societies -- the immediate post-independence era, 1960-1985. Our analyses examined variation in

curricular subjects and time allocated to these subjects according to several key national features: (a) world regional location, (b) per capita income level, (c) gross primary enrollment rate, and (d) projected GNP growth rate and primary enrollment level. Parallel analyses were also done for a smaller group of constant cases; that is, for countries with complete data for both the 1960s and the 1980s.

Generally the results reported here are consistent with other research we have conducted over longer time frames (see Benavot et al., 1988). Variation by world region and other national characteristics occurs, but it is surprisingly small. Curricular offerings and the relative emphasis on different subjects, whether compared across groups of countries or across time periods, reveal a high degree of homogeneity and consistency. In our opinion, the data suggest that there is a good deal of official consensus at the world level as to what subject areas should be offered in primary school curricula and how much emphasis should be placed on each subject according to official time allocations. This consensus helps to explain why there is so little debate or contest over content of school curricula in national and international reports. At least in terms of official curricular policies, the primary school curriculum of today is, increasingly, a taken-for-granted matter.

Appendix 1

Number of Articles in Major Journals Which Analyze the Content of Educational Curricula,
1977-1987 (number of articles examined in parentheses)

<u>Journal</u>	Number of Articles Analyzing School Curricula in:		
	<u>One Country</u>	<u>Two Countries</u>	<u>Three or More Countries</u>
Comparative Education Review, 1977-87 (n=282)	9	4	0
Comparative Education, 1977-87 (n=232)	6	2	1
Journal of Curriculum Studies, 1977-87 (n=219)	7	2	5
Curriculum Inquiry, 1975-86 (n=275)	3	0	0
Journal of Curriculum and Supervision, 1985-87* (n=63)	1	0	0
Curriculum and Teaching, 1986* (n=12)	1	0	0

Totals (n=1083)	27	8	6

* These are new journals in the area of curriculum studies.

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